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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,850	11/01/2001	William A. Bries	16-019	9029

7590 07/26/2004

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EXAMINER

MAYES, MELVIN C

ART UNIT PAPER NUMBER

1734

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/032,850	BRIESE, WILLIAM A.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Melvin Curtis Mayes	1734	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 April 2004.  
 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3,5-8,10-13,15,23-26,28-35,46,47,50 and 58 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☒ Claim(s) 13,15,24,30-32,34,35,46 and 47 is/are allowed.  
 6) ☒ Claim(s) 1-3,5-8,10-12,23,25,26,28,29,33,50 and 58 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
     \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102 and 103***

(1)

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(2)

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

(3)

Claim 12 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Morris 5,162,069

Morris discloses a cassette applicator head system comprising: an applicator head 50 (frame); a drive roller 51 mounted to the applicator head; a cassette assembly 30 (removable cartridge) removably attached to the applicator head; supply spool 33 (tape spool) rotatably attached to the cassette for receiving a supply reel of flexible material; peeler arm 80 (platen) with angular tip, attached to the cassette; and takeup spool 61 (rewind spool) rotatably mounted to the cassette (col. 4-7, Figs 2-3).

Further, by providing a cassette applicator head for receiving and feeding a reel of flexible material, a tape dispenser capable of supporting a roll of tape having a liner is obviously provided.

(4)

Claims 1, 2, 5-8, 10, 11, 23, 25, 28, 29, 33 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over either Kuhn et al. in view of Dailey, Jr. 2002/0170663.

Kuhn et al. disclose a tape applicator for applying tape to a sheet of glass comprising: a tabletop 14 for supporting a sheet of glass; a support arm 18 (gantry) for supporting and moving the tape head 100 to different locations in the x-axis direction on the tabletop; y-axis actuator 32 (dispenser actuator) for moving the tape head in the y-axis direction on the tabletop; z-axis actuator 36 to move the tape head up and down relative to the tabletop; and rotary actuator 34 to rotate the tape head around the z-axis of the tape head. The tape applicator comprises tape head 100 (tape dispenser) connected to frame 40 by rotary actuator 34, the tape head comprising tape roll holder 102 (tape spool) for receiving a roll of tape having a liner; an unwind roller 106 (drive roller) including a motor to drive the roller to pull the tape from the roll of tape; a rotary die 122 to cut shapes in the tape; an application roller 152 (pressure roller) on an applying roller arm 151 movable by an air cylinder (pneumatic actuator) for applying the tape to the glass; a platen 154 with an edge 146 to separate the liner from the tape; a liner take-up roller 170 (rewind spool) driven by a motor. The tape applicator comprises a controller for sending signals to the actuators as to where to move the tape head relative to the tabletop. The tape roll holder and the liner take-up roller each include a friction clutch to provide tension [0039]-[0077]. Kuhn et al. disclose that to determine the initial location of the tape head on the tabletop, the actuators can include sensors to determine the location, but do not disclose an optical sensor for detecting the edge of the glass sheet.

Dailey, Jr. teaches that tape applicator for applying tape to glass panel is provided with a sensor 54 mounted to the applicator head to detect the edge of the glass panel as it is approached by the tape applicator and provide signals to the controller which controls the positioning, movement and operation of the tape applicator [0026]-[0027].

It would have been obvious to one of ordinary skill in the art to have modified the tape applicator of Kuhn et al. or Erickson by providing a sensor, as taught by Dailey, Jr., to detect the edge of the glass sheet as it is approached by the tape applicator and provide signals to the controller which controls the positioning, movement and operation of the tape applicator. Providing the sensor as an optical sensor would have been obvious to one of ordinary skill in the art as a sensor which can detect the edge of a glass panel. By providing the sensor to detect edges so as to provide the controller with signals to control the positioning, movement and operation of the tape applicator, a controller is obviously provided which is capable of determining a sensed position and orientation of the glass sheet or plate based on the sensor outputs and moving the frame or tape dispenser to apply the tape based on the sensed position and orientation, as claimed in Claims 1, 23 and 50.

Further, it would have been obvious to one of ordinary skill in the art to have provided the applicator with a sensor to determine the distance between the applicator and the sheet of glass, as claimed in Claim 8 to determine the position the applicator in the z-axis (up and down) direction with respect to the glass for application of the tape, as Kuhn et al. suggest including sensors to determine the location of the applicator.

(5)

Claims 3 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied to Claims 1 and 23, further in view of Higgins 4,285,752.

Higgins teaches in automatic tape laying systems for depositing tape on a surface from a supply reel, an encoder is provided responsive to rotation of a driven roller for accurately measuring the amount of tape transported from the tape supply reel (col. 5, lines 7-13).

It would have been obvious to one of ordinary skill in the art to have modified the tape applicator of the references as combined by providing the drive roller with an encoder (sensor), as taught by Higgins, to be responsive to rotation of the drive roller for accurately measuring the amount of tape transported from the tape supply reel.

(6)

Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kuhn et al. 2003/0056905 in view of Luhman and Higgins.

Kuhn et al. disclose a tape applicator for applying tape to a sheet of glass comprising: a tabletop 14 for supporting a sheet of glass; a support arm 18 (gantry) for supporting and moving the tape head 100 to different locations in the x-axis direction on the tabletop; y-axis actuator 32 (dispenser actuator) for moving the tape head in the y-axis direction on the tabletop; z-axis actuator to move the tape head up and down relative to the tabletop; and rotary actuator to rotate the tape head around the z-axis of the tape head. The tape applicator comprises tape head 100 connected to frame 40 by rotary actuator 34, the tape head comprising tape roll holder 102 (tape spool) for receiving a roll of tape having a liner; an unwind roller 106 (drive roller) including a motor to drive the roller to pull the tape from the roll of tape; a rotary die 122 to cut shapes in the

Art Unit: 1734

tape; an application roller 152 (pressure roller) on an applying roller arm 151 movable by an air cylinder (pneumatic actuator) for applying the tape to the glass; a platen 154 with an edge 146 to separate the liner from the tape; a liner take-up roller 170 (rewind spool) driven by a motor; and a remover 140 (chad remover) to remove the removable portion of the tape from the liner. The tape applicator comprises a controller for sending signals to the actuators as to where to move the tape head relative to the tabletop and to stop the liner for actuating the remover to remove the removable portion of tape from the liner. The tape roll holder and the liner take-up roller each include a friction clutch to provide tension to keep the liner taut [0039]-[0077].

Luhman et al. teach that a drive roller for a taping head is driven by a servo motor to drive the drive roller at varying speeds (col. 3, lines 39-41).

Higgins teaches that in automatic tape laying systems, an encoder is provided responsive to rotation of a roller for accurately measuring the amount of tape transported from the tape supply reel (col. 5, lines 7-13).

It would have been obvious to one of ordinary skill in the art to have modified the tape applicator of Kuhn et al. by driving the unwind roller (drive roller) by a servo motor, as taught by Luhman et al., to drive the drive roller at varying speeds. Providing the servo motor with an encoder (sensor) would have been obvious to one of ordinary skill in the art, as taught by Higgins, to accurately measure the amount of tape transported from the tape supply reel.

***Allowable Subject Matter***

(7)

Claims 13, 15, 24, 30-32, 34, 35, 46, 47 are allowed.

(8)

Kuhn et al. and Dailey, Jr. are references that qualify as prior art under 35 U.S.C. 102(e). The rejection using Kuhn et al. (filed 9/27/01) and Dailey, Jr. (filed 5/16/01) can be overcome by filing an affidavit or declaration under 37 CFR 1.131 to antedate one or both of the references by showing prior invention (however, also see Erickson 2002/0092593 filed 1/12/01 which has similar disclosure as Kuhn et al). see MPEP 715.

***Response to Arguments***

(9)

Applicant's arguments filed April 29, 2004 have been fully considered but they are not persuasive.

Applicant argues that Kuhn et al. and Dailey Jr. do not disclose or suggest a controller coupled to a sensor that determines orientation of the glass sheet based on the optical sensor outputs and moves the tape dispenser based on the determined orientation and argues that the references do not disclose or suggest a controller that stops movement of the tape while maintaining operation of the rewind motor to maintain tension in the tape as the chad is removed.

(10)

Applicant's arguments are not convincing. Kuhn et al. disclose a tape applicator which includes sensors and a controller. The Examiner maintains that the method by which these



sensors and control are used to control movement of the applicator for application of tape would have been obvious to one of ordinary skill in the art. Kuhn et al. disclose using sensors and providing continuous feedback as to location of the tape head, while Dailey, Jr. suggest using a sensor to control tape application by sensing the edges of a glass sheet. Further, the Examiner would like to point out that Applicant admits the use of a sensor to determine precise location of a glass sheet for movement of a head assembly (US 6,202,524).

Kuhn et al. disclose that the liner is kept taut by a take-up roller having a motor and friction clutch [0055]. This suggests keeping the liner taut throughout the tape application process and thus the control of chad remover, drive roller and take-roller motor as claimed in Claim 58.

### ***Conclusion***

(11)

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 1734


however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

(12)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melvin Curtis Mayes whose telephone number is 571-272-1234. The examiner can normally be reached on Mon-Fri 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Fiorilla can be reached on 571-272-1187. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Melvin Curtis Mayes  
Primary Examiner  
Art Unit 1734

MCM  
July 22, 2004